

Claims

1. In a communication system, a method for soft handoff operation of at least a first signal transmitted according to a first communication standard and a second signal transmitted according to a second communication standard comprising the steps of:

receiving said first signal initially;

detecting presence of a pilot signal;

measuring pilot signal strength of said pilot signal;

transmitting a pilot strength measurement message, based on said

measuring pilot signal strength, using a communication channel communicated according to said first communication standard;

failing to receive a handoff direction message after said transmitting said pilot strength measurement message;

detecting presence of a broadcast control channel;

measuring a carrier to interference ratio of said broadcast control channel;

comparing said carrier to interference ratio to a threshold;

initiating, if said carrier to interference ratio is above said threshold, a second communication according to said second communication standard

using a reverse link common control channel communicated according to said second communication standard;

transmitting said pilot strength measurement message using said reverse link common control channel;

5 initiating a soft handoff operation by transmitting information according to said first and second communication standards respectively via said first and second signals.

2. The method as recited in claim 1 further comprising the step of:

10 equalizing communication data rate of said first and second signals communicated according to said first and second communication standards.

3. The method as recited in claim 2 wherein said equalizing communication data rate includes:

15 communicating data rate of said first signal to a source of said second signal for setting data rate of said second signal equal to data rate of said first signal.

4. The method as recited in claim 2 wherein said equalizing

20 communication data rate includes:

adjusting data rate of said second signal to data rate of said first signal.

5. The method as recited in claim 1 further comprising the step of:
combining said first and second signals.

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6. The method as recited in claim 1 further comprising the step of:
receiving said pilot strength measurement message via said first
common control channel;

detecting said pilot strength measurement message is of said pilot
10 signal transmitted according to said second communication standard.

7. The method as recited in claim 1 further comprising the step of:
determining said threshold based on an allocated power level assigned
to said pilot signal, an allocated power level assigned to said broadcast control
15 channel, and a soft-handoff threshold in said communication system.

8. In a communication system, a method for soft handoff operation of at
least a first signal transmitted according to a first communication standard
and a second signal transmitted according to a second communication
20 standard comprising the steps of:

receiving said first signal initially;

detecting presence of a pilot signal;

measuring pilot signal strength of said pilot signal;

transmitting a pilot strength measurement message based on said

5 measuring pilot signal strength ;

receiving, after said transmitting said pilot strength measurement message, a handoff direction message for combining signals transmitted according to said first communication standard;

detecting presence of a broadcast control channel;

10 measuring a carrier to interference ratio of said broadcast control channel;

comparing said carrier to interference ratio to a threshold;

initiating, if said carrier to interference ratio is above said threshold, a second communication according to said second communication standard

15 using a reverse link common control channel;

transmitting said pilot strength measurement message using said reverse link common control channel;

initiating a soft handoff operation by transmitting information according to said first and second communication standards respectively via said first

20 and second signals.

9. The method as recited in claim 8 further comprising the step of:
combining said first and second signals.

5 10. The method as recited in claim 9 further comprising the step of:
dropping said first signal in favor of the said second signal.

11. An apparatus in a communication system comprising:

a first signal processing block for processing a first received signal according to a first communication standard to produce a first received processed signal;

5 a second signal processing block for processing a second received signal according to a second communication standard to produce a second received processed signal;

a combiner for combining said first and second received processed signal to produce a combined signal.

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12. The apparatus of claim 11 further comprising:

a decoder for decoding said combined signal to retrieve information communicated via said first and second signals.

15 13. The apparatus of claim 11 wherein said first processing block comprising:

a despreader despread said first signal by multiplying said first signal with a first PN sequence compatible to said first communication standard to produce a first despread signal;

a traffic channel Walsh code despreaders and demodulator to produce a first demodulated signal from said first despread signal;

a deinterleaver deinterleaving said first demodulated signal according to a first interleaving/deinterleaving function of said first communication standard to produce said first received processed signal.

14. The apparatus of claim 11 wherein said second processing block comprising:

a despreaders despreads said second signal by multiplying said second signal with a second PN sequence compatible to said second communication standard to produce a second despread signal;

a traffic channel Walsh code despreaders and demodulator to produce a second demodulated signal from said second despread signal;

a deinterleaver deinterleaving said second demodulated signal according to a second interleaving/deinterleaving function of said second communication standard to produce said second received processed signal.